

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated September 14, 2009 has been received and its contents carefully reviewed.

Claims 31, 34, 37, 38, 41, 44, and 48 are hereby amended to correct informalities. Applicants assert that these corrections are not substantive amendments. They merely correct clerical errors noted, and therefore already understood, by the Office. Accordingly, these amendments should not necessitate a further search. No new matter has been added. Claims 1-30 were previously canceled without prejudice or disclaimer. Accordingly, claims 31-48 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

**The Office objects to claims 34, 38, 44, and 48 because of informalities.** *Office Action* at p. 2, ¶ 1. Claims 34, 38, 44, and 48 have been amended to correct inadvertent clerical errors. In view of these corrections, Applicants respectfully request withdrawal of the objection to claims 34, 38, 44, and 48.

**The Office rejects claims 31-42 under 35 U.S.C. § 112, second paragraph.** *Office Action* at p. 2-3. Claims 31, 37, and 41 have been amended to correct inadvertent clerical errors. In view of these corrections, Applicant respectfully request withdraw the rejection of claims 31-42 under 35 U.S.C. § 112.

**The Office rejects claims 31-34, 38-42, and 46-48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6473421 to Tappan *et al.* (hereinafter “Tappan”) in view of U.S. Patent No. 6791949 to Ryu *et al.* (hereinafter “Ryu”).** *Office Action* at p. 3. Applicants respectfully traverse the rejection.

Independent claim 31 is allowable in that it recites, among other features, “the method comprising the following steps executed when a router receives the datagram: reading a value in the vector index field of the datagram; reading the reference contained in the field of the vector of the datagram designated by the read index value; if the table of the router does not contain the read reference, writing a reference selected in the table of the router into the field of the vector of the datagram designated by the read index value; writing into the vector index field of the

datagram a value equal to the read value incremented by one unit; and forwarding the datagram to a next router of the network.”

Independent claim 46 is allowable in that it recites, among other features, “means for storing a table of references; means for associating references in the table with routes; means for looking up a read reference in the table of references of said router, adapted to command forwarding of said datagram along the route associated with the read reference if the table of references contains the read reference; means for selecting a reference in the table of references, adapted to be activated if the table of references does not contain the read reference and to command forwarding of said datagram along the route associated with the selected reference; and means for writing a value equal to the read value incremented by one unit into the index field of said datagram.”

*Tappan* fails to teach or suggest, at least these above-recited features of the claimed invention. *Tappan* discloses the introduction of a label vector in each packet transmitted through a communication network. However, *Tappan*’s use is different from that of the present invention and thus the Office’s combination of *Tappan* with *Ryu* would not have been considered by one of ordinary skill in the art at the time of the invention. With reference to *Tappan*’s FIG. 6, *Tappan* describes that a first label of a vector from the left is erased once the packet has been forwarded to a corresponding border router (see action of router TR1B). *Tappan* at col. 6, lines 25-50; col. 10, lines 18-45; FIG. 6. Therefore, the label vector is progressively emptied, and is empty when arriving at the last router (EASBR) before the destination terminal (D). Consequently, the vector implementation of *Tappan* is different from that of the present invention; in particular, it does not convey a list of the labels from successive routers that have forwarded the packet, up to the destination terminal.

In addition, the vector reading mode of *Tappan* is that of FIFO from the left side in FIG. 6, and not that of reading the labels by progressively shifting the fields of the vector as in the present invention. *Tappan* discloses that the router I-ASBR (FIG. 6) produces a packet with initial label values contained in the label vector. But this function of initializing the labels in the vector is performed by the router (I-ASBR) and not by the source terminal (S) of the packet. *Tappan* at col. 6, lines 33-39. Furthermore, *Tappan* underlines the functional difference between

the source terminal and the first router along the route used. *Tappan* at col. 5, line 62 - col. 6, line 6.

*Ryu* fails to cure the deficiencies of *Tappan*. In fact, the section of *Ryu* cited by the Office (col. 18, lines 46-56) relates to updating the Route Table of a router. So this section cannot complete the disclosure of *Tappan* for a teaching or suggestion of all the features of the invention as claimed in either independent claims 31 or 46.

For at least all of the reasons presented above, the subject-matter of independent claims 31 and 46 cannot be deduced in an obvious manner from a combination of *Tappan* and *Ryu*. It stands to reason that claims 32-34, 38-42, and 47-48, which variously depend from independent claims 31 and 46, are also patentably distinguishable for at least the same reasons. Therefore, Applicants respectfully request the Office to withdraw the 35 U.S.C. § 103(a) rejection of claims 31-34, 38-42, and 46-48.

**The Office rejects claims 35-37 under 35 U.S.C. § 103(a) as being unpatentable over *Tappan* in view of *Ryu*, and further in view of U.S. Patent No. 7343619 to Ofek *et al.* (hereinafter “*Ofek*”).** *Office Action* at p. 16. Applicants respectfully traverse the rejection.

Claims 35-37 are allowable in that they depend from independent claim 31. As discussed above, *Tappan* and *Ryu* fail to teach or suggest all the features of independent claim 31.

*Ofek* fails to cure the deficiencies of *Tappan* and *Ryu*. In fact, *Ofek* is merely cited for a purported teaching of, “sequential checks ... to provide a trusted flow of packets,” *Office Action* at pp. 16-19. However, nowhere does *Ofek* teach or suggest, at least, the above recited features of claim 31, from which claims 35-37 depend. Moreover, *Ofek* does not relate to initializing the successive vector values in a packet upon transmission of this packet, by the source terminal. As stated by the Office, *Ofek* discloses calculating header values and writing them in a packet header, but it does not indicate that these values are arranged in a vector with a vector index which is also reset at the same time. Thus, *Ofek*’s disclosure cannot complete the disclosure of *Tappan* and *Ryu* at least with respect to the above-recited features of independent claim 31, from which claims 35-37 depend.

Accordingly, Applicants respectfully submit that independent claim 31 is patentably distinguishable over *Tappan* in view of *Ryu*, and in further view of *Ofek*. It stands to reason that

claims 35-37, which depend from independent claim 31, are also patentably distinguishable for at least the same reasons. Therefore, Applicants respectfully request the Office to withdraw the 35 U.S.C. § 103(a) rejection of claims 35-37.

**The Office rejects claims 43-45 under 35 U.S.C. § 103(a) as being unpatentable over *Tappan* in view of *Ofek*.** *Office Action* at p. 19. Applicants respectfully traverse the rejection.

*Tappan* fails to teach or suggest at least “means for writing an initial reference into each field of the vector of the datagram to be sent by the terminal” as recited in independent claim 43. The Office alleges that “when a router receives an IP datagram, it searches through the prefix entries in the forwarding table to find the longest prefix that matches the incoming packet’s destination address. When it finds that route in its forwarding table, it reads that route’s fields that specify the interface over which it should forward the packet.” *Office Action* at p. 19-20 (citing *Tappan* at col. 2, lines 28-35). Respectfully, Applicants fail to understand how reading a “route’s fields that specify the interface over which it should forward the packet” can in any way teach or suggest “means for writing an initial reference into each field of the vector of the datagram to be sent by the terminal” as recited in independent claim 43. As with its rejection of claim 43 with regard to Berthaud (US Pat. Pub. No. 2004/0090955) in the Office Action mailed February 19, 2009, the Office appears to leap from a purported disclosure of the reference to a teaching or suggestion of an element recited in the claim. The Office’s leap from the purported disclosure of *Tappan* to a teaching or suggestion of “means for writing an initial reference into each field of the vector of the datagram to be sent by the terminal” as recited in independent claim 43 is not understood and cannot be followed. Accordingly, just as Applicants cannot presently understand the connection the Office is trying to make, one of ordinary skill at the time of the invention would have likewise failed to see a connection, and would simply not select *Tappan* for a teaching or suggestion of at least the above-recited element of independent claim 43. If the Office insists on maintaining its obviousness rejection of independent claim 43 in view of *Tappan* (citing *Tappan* as a primary reference), then Applicant respectfully requests a cogent explanation of how one of ordinary skill in the art at the time of the invention could, for example, take a purported teaching of reading a “route’s fields that specify the interface over which it should forward the packet,” as asserted by the Office and understand that as a teaching or suggestion of at least “means for writing an initial reference into each field of the vector of the datagram to be sent by the terminal” as recited in independent claim 43. Absent at least such a

cogent explanation, Applicant asserts that the Office must withdraw its 35 U.S.C. § 103(a) rejection of independent claim 43.

*Ofek* fails to cure the deficiencies of *Tappan* with respect to at least the above-recited limitations of independent claim 43. In fact, the Office only cites *Ofek* for a purported teaching of “means for writing an initial value into the index field of the datagram to be sent by the terminal.” *Office Action* at p. 20. Thus, *Ofek*’s disclosure cannot complete the disclosure of *Tappan* at least with respect to the above-recited features of independent claim 43.

For at least the above reasons, Applicant respectfully submits that independent claim 43 is patentably distinguishable over *Tappan* in view of *Ofek*. It stands to reason that claims 44-45, which depend from independent claim 43, are also patentably distinguishable for at least the same reasons. Therefore, Applicants respectfully request the Office to withdraw the 35 U.S.C. § 103(a) rejection of claims 43-45.

### **CONCLUSION**

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

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